

B<sup>1</sup> atmospheres pressure (4.053 MPa) at just above 8° C. Above the liquidus, carbon dioxide exists as a gas; below the liquidus, carbon dioxide spontaneously compresses to a liquid.

Page 24, paragraph 0077:

B<sup>2</sup> [0077] As in the case of positively buoyant hydrate-based embodiments, formation of the negatively buoyant (assisted buoyancy) hydrate is exothermic. Accordingly, according to the '422 application and precursors, heat which is given off during hydrate formation warms the surrounding, residual seawater, which makes the residual seawater more buoyant than the chilled seawater which is being input into the lower part of the column. The residual seawater therefore moves buoyantly upward along with the hydrate as new, denser input water is supplied to the base of the fractionation column, as at 361.

Page 33, paragraph 00101:

B<sup>3</sup> [00101] In the embodiments of the '422 application described thus far, the weight of the column of water creates the pressures required for hydrate formation. In those embodiments, the minimum pressure depth at which hydrate is stable is far greater than at sea level, where the pressure is one atmosphere (0.10133 MPa). Accordingly, the hydrate begins to dissociate at relatively elevated pressures.

Page 60, paragraph 00169:

B<sup>4</sup> [00169] In another embodiment of the present invention, illustrated in Figure 26, artificial refrigeration is provided in the hydrate formation region so that a higher proportion of fresh water can be extracted from a given volume of water-to-be-treated by formation of hydrate than can be accomplished without artificial cooling. For example, as illustrated in Figure 26, artificial refrigeration elements 1513 are provided in the hydrate formation region 1550 of column 1510. The artificial refrigeration elements 1513 can include, for example, means for standard refrigeration techniques such as heat transfer from one region to another using another fluid in a closed system of pipes and radiators as the heat exchange medium. In another embodiment, direct cooling of the refrigeration apparatus in the hydrate formation section 1513 can be accomplished by thermoelectric techniques or other techniques, where some or all of the residual water 1460 is used as the heat sink in or near the hydrate formation section. The effect of cooling the hydrate forming reaction results in the formation of more hydrate per unit volume of input water-to-be-treated than if the hydrate forming

B4 region were not artificially cooled. This enhanced formation of hydrate, which results in higher volume percentages of fresh water production, can be implemented in embodiments of both naturally and artificially pressurized apparatus.

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See the attached Appendix for the changes made to effect the above changes to the specification.